

#6  
9/20/99  
72

PAGE: 1

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/289,180DATE: 06/16/1999  
TIME: 11:50:13

Input Set: I289180.RAW

This Raw Listing contains the General Information  
Section and up to first 5 pages.

1 <110> APPLICANT: SHIMOKAWATOKO, Yasutaka  
2 NISHIO, Shoichi  
3 <120> TITLE OF INVENTION: A method for evaluating the ability of a compound  
4 to inhibit the protoporphyrinogen oxidase activity  
5 <130> FILE REFERENCE: 2185-324P  
6 <140> CURRENT APPLICATION NUMBER: US/09/289,180  
7 <141> CURRENT FILING DATE: 1999-04-09  
8 <150> EARLIER APPLICATION NUMBER: JP 10/099619  
9 <151> EARLIER FILING DATE: 1998-04-10  
10 <160> NUMBER OF SEQ ID NOS: 14  
11 <210> SEQ ID NO 1  
12 <211> LENGTH: 477  
13 <212> TYPE: PRT  
14 <213> ORGANISM: Rattus norvegicus  
15 <400> SEQUENCE: 1  
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17 1 5 10 15  
18 Ala Ser Tyr His Leu Thr Arg Ser Pro Ser Pro Pro Lys Val Ile Leu  
19 20 25 30  
20 Val Glu Gly Ser Lys Arg Leu Gly Gly Trp Ile Arg Ser Val Arg Gly  
21 35 40 45  
22 Ser Asp Gly Ala Ile Phe Glu Leu Gly Pro Arg Gly Ile Arg Pro Ala  
23 50 55 60  
24 Gly Ala Leu Gly Ala Arg Thr Leu Leu Leu Val Ser Glu Leu Gly Leu  
25 65 70 75 80  
26 Glu Ser Glu Val Leu Pro Val Arg Gly Asp His Pro Ala Ala Gln Asn  
27 85 90 95  
28 Arg Phe Leu Tyr Val Gly Gly Ala Leu His Pro Leu Pro Ser Gly Leu  
29 100 105 110  
30 Arg Gly Leu Leu Arg Pro Ser Pro Pro Phe Ser Lys Pro Leu Phe Trp  
31 115 120 125  
32 Ala Gly Leu Arg Glu Leu Thr Lys Pro Arg Gly Lys Glu Pro Asp Glu  
33 130 135 140  
34 Thr Val His Ser Phe Ala Gln Arg Arg Leu Gly Pro Glu Val Ala Ser  
35 145 150 155 160  
36 Leu Ala Met Asp Ser Leu Cys Arg Gly Val Phe Ala Gly Asn Ser Gln  
37 165 170 175  
38 Glu Leu Ser Ile Arg Ser Cys Phe Pro Ser Leu Phe Gln Ala Glu Gln  
39 180 185 190  
40 Thr His Gly Ser Met Leu Leu Gly Leu Leu Leu Gly Ala Gly Gln Thr  
41 195 200 205  
42 Pro Gln Pro Asn Ser Ser Leu Ile Arg Gln Ala Arg Ala Glu Arg Trp  
43 210 215 220  
44 Ser Gln Trp Ser Leu Arg Gly Gly Leu Glu Met Leu Pro Gln Ala Leu

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PAGE: 2

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/289,180

DATE: 06/16/1999  
TIME: 11:50:13

Input Set: I289180.RAW

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45      225      230      235      240
46      His Asn Tyr Leu Thr Ser Lys Gly Val Thr Ile Leu Ser Gly Gln Pro
47              245              250              255
48      Ala Cys Gly Leu Ser Leu Gln Pro Glu Gly His Trp Lys Val Ser Leu
49              260              265              270
50      Gly Asp Ser Ser Leu Glu Ala Asp His Ile Ile Ser Thr Ile Pro Ala
51              275              280              285
52      Ser Val Leu Ser Lys Leu Leu Pro Ala Glu Ala Ala Pro Leu Ala His
53              290              295              300
54      Ile Leu Ser Thr Ile Gln Ala Val Ser Val Ala Val Val Asn Leu Gln
55      305              310              315              320
56      Tyr Lys Gly Ala Cys Leu Pro Val Gln Gly Phe Gly His Leu Val Pro
57              325              330              335
58      Ser Ser Glu Asp Pro Thr Val Leu Gly Ile Val Tyr Asp Ser Val Ala
59              340              345              350
60      Phe Pro Glu Gln Asp Gly Asn Pro Pro Gly Leu Arg Leu Thr Val Met
61              355              360              365
62      Leu Gly Gly Tyr Trp Leu Gln Lys Leu Lys Ala Asn Gly His Glu Leu
63              370              375              380
64      Ser Pro Glu Leu Phe Gln Arg Ala Ala Gln Glu Ala Ala Ala Thr Gln
65      385              390              395              400
66      Leu Gly Leu Lys Glu Gln Pro Ser His Cys Leu Val His Leu His Lys
67              405              410              415
68      Asn Cys Ile Pro Gln Tyr Thr Leu Gly His Trp Gln Lys Leu Asp Ser
69              420              425              430
70      Ala Leu Gln Phe Leu Thr Ala Gln Arg Leu Pro Leu Thr Leu Ala Gly
71              435              440              445
72      Ala Ser Tyr Glu Gly Val Ala Val Asn Asp Cys Ile Glu Ser Gly Arg
73              450              455              460
74      Gln Ala Ala Ile Ala Val Leu Gly Thr Glu Ser Asn Ser
75      465              470              475

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76 <210> SEQ ID NO 2
77 <211> LENGTH: 1638
78 <212> TYPE: DNA
79 <213> ORGANISM: Rattus norvegicus
80 <220> FEATURE:
81 <222> LOCATION: (143)...(1576)
82 <400> SEQUENCE: 2

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W--> 84      gggacccgtg gggtttctgc agttgtaaag cagggtgcct cccgtttctcc tgggggtatct      120
W--> 85      cgactttccc ccaggcctta cg atg gcc cgg act gtg ata gtg ctt ggc gga      172
86              Met Ala Arg Thr Val Ile Val Leu Gly Gly
87              1              5              10
W--> 88      ggt atc agc gga ttg gcc gca agt tat cat ctg acc cga agc ccc agt      220
89      Gly Ile Ser Gly Leu Ala Ala Ser Tyr His Leu Thr Arg Ser Pro Ser
90              15              20              25
W--> 91      cct cct aag gtg atc tta gtg gag ggc agc aaa cgt ttg gga ggc tgg      268
92      Pro Pro Lys Val Ile Leu Val Glu Gly Ser Lys Arg Leu Gly Gly Trp
93              30              35              40
W--> 94      atc cgt tca gtc cga gga tca gat ggt gcg atc ttt gaa ctt gga cct      316

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PAGE: 3

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/289,180

DATE: 06/16/1999  
TIME: 11:50:13

Input Set: I289180.RAW

	95	Ile Arg Ser Val Arg Gly Ser Asp Gly Ala Ile Phe Glu Leu Gly Pro	
	96	45 50 55	
W-->	97	cga gga att agg ccg gct gga gcc ctg gga gcc cgg acc ctg ctc ctg	364
	98	Arg Gly Ile Arg Pro Ala Gly Ala Leu Gly Ala Arg Thr Leu Leu Leu	
	99	60 65 70	
W-->	100	ggt tct gaa ctt ggc ttg gaa tcc gaa gtc ttg cct gtc cga ggg gat	412
	101	Val Ser Glu Leu Gly Leu Glu Ser Glu Val Leu Pro Val Arg Gly Asp	
	102	75 80 85 90	
W-->	103	cat cca gct gcc cag aac cgg ttc ctg tat gta ggc ggt gcc ctg cac	460
	104	His Pro Ala Ala Gln Asn Arg Phe Leu Tyr Val Gly Gly Ala Leu His	
	105	95 100 105	
W-->	106	ccc cta ccc tct ggc ctc agg ggg cta ctt cgt cct tca ccc ccc ttc	508
	107	Pro Leu Pro Ser Gly Leu Arg Gly Leu Leu Arg Pro Ser Pro Pro Phe	
	108	110 115 120	
W-->	109	tca aaa cct cta ttt tgg gct gga ctg agg gag ttg acg aag ccc agg	556
	110	Ser Lys Pro Leu Phe Trp Ala Gly Leu Arg Glu Leu Thr Lys Pro Arg	
	111	125 130 135	
W-->	112	ggc aaa gag cct gat gag act gtg cac agt ttt gcc cag cgc cgc ctt	604
	113	Gly Lys Glu Pro Asp Glu Thr Val His Ser Phe Ala Gln Arg Arg Leu	
	114	140 145 150	
W-->	115	gga cct gag gtg gcg tct ctg gct atg gac agc ctt tgc aga gga gtg	652
	116	Gly Pro Glu Val Ala Ser Leu Ala Met Asp Ser Leu Cys Arg Gly Val	
	117	155 160 165 170	
W-->	118	ttt gct ggc aac agc caa gag ctc agc atc cgg tcc tgc ttt ccc agt	700
	119	Phe Ala Gly Asn Ser Gln Glu Leu Ser Ile Arg Ser Cys Phe Pro Ser	
	120	175 180 185	
W-->	121	ctc ttc caa gct gaa caa acc cac ggg tcc atg tta ctg ggg ctg ctg	748
	122	Leu Phe Gln Ala Glu Gln Thr His Gly Ser Met Leu Leu Gly Leu Leu	
	123	190 195 200	
W-->	124	ctg ggg gca ggg caa act cca cag ccc aat tcc tca tta att cgt cag	796
	125	Leu Gly Ala Gly Gln Thr Pro Gln Pro Asn Ser Ser Leu Ile Arg Gln	
	126	205 210 215	
W-->	127	gcc cgc gct gag cga tgg agt cag tgg tca ctc cgt gga ggg ctg gag	844
	128	Ala Arg Ala Glu Arg Trp Ser Gln Trp Ser Leu Arg Gly Gly Leu Glu	
	129	220 225 230	
W-->	130	atg ttg ccc cag gcc ctt cat aac tac cta aca agt aaa ggg gtc act	892
	131	Met Leu Pro Gln Ala Leu His Asn Tyr Leu Thr Ser Lys Gly Val Thr	
	132	235 240 245 250	
W-->	133	atc ctc agt ggt cag cca gcc tgc ggg ctc agc ctt cag cca gaa ggg	940
	134	Ile Leu Ser Gly Gln Pro Ala Cys Gly Leu Ser Leu Gln Pro Glu Gly	
	135	255 260 265	
W-->	136	cac tgg aag gtg tct cta ggg gac agc agt ctg gag gct gac cac att	988
	137	His Trp Lys Val Ser Leu Gly Asp Ser Ser Leu Glu Ala Asp His Ile	
	138	270 275 280	
W-->	139	ata agc acc att cca gct tca gtg ctc agc aag ctg ctc cct gcc gag	1036
	140	Ile Ser Thr Ile Pro Ala Ser Val Leu Ser Lys Leu Leu Pro Ala Glu	
	141	285 290 295	
W-->	142	gct gca cct ctg gct cac atc ctg agt acc atc caa gct gtg tct gtg	1084
	143	Ala Ala Pro Leu Ala His Ile Leu Ser Thr Ile Gln Ala Val Ser Val	
	144	300 305 310	

PAGE: 4

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/289,180

DATE: 06/16/1999  
TIME: 11:50:13

Input Set: I289180.RAW

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W--> 145      gcc gtg gtg aat ctg cag tac aaa gga gct tgt ctg cct gtg cag gga      1132
      146      Ala Val Val Asn Leu Gln Tyr Lys Gly Ala Cys Leu Pro Val Gln Gly
      147      315                      320                      325                      330
W--> 148      ttt gga cat ctg gtg cca tcc tca gaa gac ccg acc gtc ctg gga atc      1180
      149      Phe Gly His Leu Val Pro Ser Ser Glu Asp Pro Thr Val Leu Gly Ile
      150                      335                      340                      345
W--> 151      gtg tat gac tcg gtt gct ttt cct gag cag gat ggg aac ccc cca ggc      1228
      152      Val Tyr Asp Ser Val Ala Phe Pro Glu Gln Asp Gly Asn Pro Pro Gly
      153                      350                      355                      360
W--> 154      ctc aga ctg act gtg atg ttg gga ggt tac tgg tta cag aag ctg aaa      1276
      155      Leu Arg Leu Thr Val Met Leu Gly Gly Tyr Trp Leu Gln Lys Leu Lys
      156                      365                      370                      375
W--> 157      gcc aat ggc cat gaa ttg tct cca gag cta ttc caa cga gca gca cag      1324
      158      Ala Asn Gly His Glu Leu Ser Pro Glu Leu Phe Gln Arg Ala Ala Gln
      159                      380                      385                      390
W--> 160      gaa gcg gct gcc aca cag tta gga ctg aaa gag caa cca agc cat tgc      1372
      161      Glu Ala Ala Ala Thr Gln Leu Gly Leu Lys Glu Gln Pro Ser His Cys
      162      395                      400                      405                      410
W--> 163      ttg gtc cat cta cac aaa aac tgt atc cct cag tat aca cta ggc cac      1420
      164      Leu Val His Leu His Lys Asn Cys Ile Pro Gln Tyr Thr Leu Gly His
      165                      415                      420                      425
W--> 166      tgg caa aaa cta gac tca gct ctg caa ttc ctg acg gcc cag agg ttg      1468
      167      Trp Gln Lys Leu Asp Ser Ala Leu Gln Phe Leu Thr Ala Gln Arg Leu
      168                      430                      435                      440
W--> 169      ccc ctg act ttg gct ggg gcc tcc tat gag ggg gta gct gtc aat gac      1516
      170      Pro Leu Thr Leu Ala Gly Ala Ser Tyr Glu Gly Val Ala Val Asn Asp
      171                      445                      450                      455
W--> 172      tgt ata gag agt ggg cgc cag gca gca att gct gtc ctg ggc aca gaa      1564
      173      Cys Ile Glu Ser Gly Arg Gln Ala Ala Ile Ala Val Leu Gly Thr Glu
      174                      460                      465                      470
W--> 175      tcg aac agc tga cccccactct cctactcatg aaagtaaaag ttgatggagc      1616
      176      Ser Asn Ser
      177      475
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      180      <211> LENGTH: 28
      181      <212> TYPE: DNA
      182      <213> ORGANISM: Artificial Sequence
      183      <220> FEATURE:
      184      <223> OTHER INFORMATION: Designed oligonucleotide primer used for amplifying a DNA
      185      <223> OTHER INFORMATION: fragment containing a partial nucleotide sequence of a
      186      <223> OTHER INFORMATION: rat-derived PPO gene
      187      <400> SEQUENCE: 3
W--> 188      tttgcagagg agtgtttgct ggcaacag      28
      189      <210> SEQ ID NO 4
      190      <211> LENGTH: 29
      191      <212> TYPE: DNA
      192      <213> ORGANISM: Artificial Sequence
      193      <220> FEATURE:
      194      <223> OTHER INFORMATION: Designed oligonucleotide primer used for amplifying a DNA

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PAGE: 5

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/289,180

DATE: 06/16/1999

TIME: 11:50:13

Input Set: I289180.RAW

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195 <223> OTHER INFORMATION: fragment containing a partial nucleotide sequence of a
196 <223> OTHER INFORMATION: rat-derived PPO gene
197 <400> SEQUENCE: 4
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199 <210> SEQ ID NO 5
200 <211> LENGTH: 25
201 <212> TYPE: DNA
202 <213> ORGANISM: Artificial Sequence
203 <220> FEATURE:
204 <223> OTHER INFORMATION: Designed oligonucleotide primer used for constructing a
205 <223> OTHER INFORMATION: vector expressing a rat-derived PPO gene in Escherichia co
206 <400> SEQUENCE: 5
W--> 207      aggccttacc gcggcccgga ctgtg                25
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209 <211> LENGTH: 25
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: Designed oligonucleotide primer used for constructing a
214 <223> OTHER INFORMATION: vector expressing a rat-derived PPO gene in Escherichia co
215 <400> SEQUENCE: 6
W--> 216      taggagagcc cgggtcagat gttcg                25
217 <210> SEQ ID NO 7
218 <211> LENGTH: 25
219 <212> TYPE: DNA
220 <213> ORGANISM: Artificial Sequence
221 <220> FEATURE:
222 <223> OTHER INFORMATION: Designed oligonucleotide primer used for constructing a
223 <223> OTHER INFORMATION: rat-derived PPO gene expression vector for direct introduc
224 <223> OTHER INFORMATION: and a rat-derived PPO expression vector for indirect intro
225 <400> SEQUENCE: 7
W--> 226      atggcccgga ctgtgatagt gcttg                25
227 <210> SEQ ID NO 8
228 <211> LENGTH: 25
229 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
231 <220> FEATURE:
232 <223> OTHER INFORMATION: Designed oligonucleotide primer used for constructing a
233 <223> OTHER INFORMATION: rat-derived PPO gene expression vector for direct introduc
234 <223> OTHER INFORMATION: and a rat-derived PPO expression vector for indirect intro
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239 <212> TYPE: PRT
240 <213> ORGANISM: Chlamydomonas reinhardtii CC-407
241 <400> SEQUENCE: 9
242      Met Met Leu Thr Gln Thr Pro Gly Thr Ala Thr Ala Ser Ser Arg Arg
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Input Set: I289180.RAW

Line	Error/Warning	Original Text
83	W Line data has been corrected	CGTACACGCG CGTTTTGCAT TAGTTGCTCA TTAATCAG
84	W Line data has been corrected	GGGACCCGTG GGGTTTCTGC AGTTGTAAAG CAGGGTGC
85	W Line data has been corrected	CGACTTTCCC CCAGGCCTTA CG ATG GCC CGG ACT
88	W Line data has been corrected	GGT ATC AGC GGA TTG GCC GCA AGT TAT CAT C
91	W Line data has been corrected	CCT CCT AAG GTG ATC TTA GTG GAG GGC AGC A
94	W Line data has been corrected	ATC CGT TCA GTC CGA GGA TCA GAT GGT GCG A
97	W Line data has been corrected	CGA GGA ATT AGG CCG GCT GGA GCC CTG GGA G
100	W Line data has been corrected	GTT TCT GAA CTT GGC TTG GAA TCC GAA GTC T
103	W Line data has been corrected	CAT CCA GCT GCC CAG AAC CGG TTC CTG TAT G
106	W Line data has been corrected	CCC CTA CCC TCT GGC CTC AGG GGG CTA CTT C
109	W Line data has been corrected	TCA AAA CCT CTA TTT TGG GCT GGA CTG AGG G
112	W Line data has been corrected	GGC AAA GAG CCT GAT GAG ACT GTG CAC AGT T
115	W Line data has been corrected	GGA CCT GAG GTG GCG TCT CTG GCT ATG GAC A
118	W Line data has been corrected	TTT GCT GGC AAC AGC CAA GAG CTC AGC ATC C
121	W Line data has been corrected	CTC TTC CAA GCT GAA CAA ACC CAC GGG TCC A
124	W Line data has been corrected	CTG GGG GCA GGG CAA ACT CCA CAG CCC AAT T
127	W Line data has been corrected	GCC CGC GCT GAG CGA TGG AGT CAG TGG TCA C
130	W Line data has been corrected	ATG TTG CCC CAG GCC CTT CAT AAC TAC CTA A
133	W Line data has been corrected	ATC CTC AGT GGT CAG CCA GCC TGC GGG CTC A
136	W Line data has been corrected	CAC TGG AAG GTG TCT CTA GGG GAC AGC AGT C
139	W Line data has been corrected	ATA AGC ACC ATT CCA GCT TCA GTG CTC AGC A
142	W Line data has been corrected	GCT GCA CCT CTG GCT CAC ATC CTG AGT ACC A
145	W Line data has been corrected	GCC GTG GTG AAT CTG CAG TAC AAA GGA GCT T
148	W Line data has been corrected	TTT GGA CAT CTG GTG CCA TCC TCA GAA GAC C
151	W Line data has been corrected	GTG TAT GAC TCG GTT GCT TTT CCT GAG CAG G
154	W Line data has been corrected	CTC AGA CTG ACT GTG ATG TTG GGA GGT TAC T
157	W Line data has been corrected	GCC AAT GGC CAT GAA TTG TCT CCA GAG CTA T
160	W Line data has been corrected	GAA GCG GCT GCC ACA CAG TTA GGA CTG AAA G
163	W Line data has been corrected	TTG GTC CAT CTA CAC AAA AAC TGT ATC CCT C
166	W Line data has been corrected	TGG CAA AAA CTA GAC TCA GCT CTG CAA TTC C
169	W Line data has been corrected	CCC CTG ACT TTG GCT GGG GCC TCC TAT GAG G
172	W Line data has been corrected	TGT ATA GAG AGT GGG CGC CAG GCA GCA ATT G
175	W Line data has been corrected	TCG AAC AGC TGA CCCCCACTCT CCTACTCATG AAA
178	W Line data has been corrected	TTGAAAAAAAA AAAAAAAAAA AA
188	W Line data has been corrected	TTTGCAGAGG AGTGTGCTT GGCACAG
198	W Line data has been corrected	AGCCGCTTCC TGTGCTGCTC GTTGGAATA
207	W Line data has been corrected	AGGCCTTACC GCGGCCCGGA CTGTG
216	W Line data has been corrected	TAGGAGAGCC CGGGTCAGAT GTTGC
226	W Line data has been corrected	ATGGCCCGGA CTGTGATAGT GCTTG
236	W Line data has been corrected	TTCATGAGTA GGAGAGTGGG GGTCA
321	W Line data has been corrected	A ATG ATG TTG ACC CAG ACT CCT GGG ACC GCC
324	W Line data has been corrected	CGG TCG CAG ATC CGC TCG GCT GCG CAC GTC T
327	W Line data has been corrected	CGG CCC ACG CCA TTC TCG GTC GCG AGC CCC G
330	W Line data has been corrected	GCG ACC GCG GCG GCC CGC CGC ACA CTC CAC C
333	W Line data has been corrected	ACT GGT GCT CCC ACG GCG TCC GGA GCC GGC G
336	W Line data has been corrected	AAT GTG TAT GAC GTG ATC GTG GTC GGT GGA G
339	W Line data has been corrected	ACC GGC CAG GCC CTG GCG GCT CAG CAC AAA A
342	W Line data has been corrected	ACG GAG GCT CGC GAG CGC GTC GGC GGC AAC A
345	W Line data has been corrected	GAT GGC TAC GTG TGG GAG GAG GGC CCG AAC A
348	W Line data has been corrected	AGC ATG CTG CAG ATT GCG GTG GAC TCT GGC T

Input Set: I289180.RAW

Line	Error/Warning	Original Text
351	W Line data has been corrected	TTC GGT GAC CCC ACG GCT CCC CGC TTC GTG T
354	W Line data has been corrected	CGC CCC GTG CCC TCG GGC CTG GAC GCC TTC A
357	W Line data has been corrected	ATC CCC GGC AAG ATC CGC GCC GGG CTG GGC G
360	W Line data has been corrected	GGA GCC ATG CCC TCC TTC GAG GAG AGT GTG G
363	W Line data has been corrected	AAC CTG GGC GAT GAG GTG TTC TTC CGC CTG A
366	W Line data has been corrected	GGC GTG TAC GCG GGC GAC CCC TCC AAG CTG T
369	W Line data has been corrected	AAC AGG ATC TGG ATT CTG GAG AAG AAC GGC G
372	W Line data has been corrected	GCC ATC AAG CTG TTC CAG GAA CGC CAG TCC A
375	W Line data has been corrected	GAC CCG CGC CTG CCG CCC AAG CCC AAG GGC C
378	W Line data has been corrected	CGC AAG GGC CTG AAG ATG CTG CCG GAC GCC A
381	W Line data has been corrected	GAC AAG ATC CGC GTG AAC TGG AAG CTG GTG T
384	W Line data has been corrected	GAC GGG CGG TAC GGG CTG GTG TAC GAC ACG C
387	W Line data has been corrected	GTG TTT GCC CGC GCC GTG GCT CTG ACC GCG C
390	W Line data has been corrected	GAC CTG GTC AAG GAG CAG GCG CCC GCC GCC G
393	W Line data has been corrected	TTC GAC TAC CCG CCG GTG GGC GCC GTG ACG C
396	W Line data has been corrected	GCC GTG CGG GAG GAG CGC AAG GCC TCG GAC G
399	W Line data has been corrected	GGT CAG CTG CAC CCG CGC ACG CAG GGC ATC A
402	W Line data has been corrected	TAC AGC TCC AGC CTG TTC CCC GGC CGC GCG C
405	W Line data has been corrected	CTG CTC AAC TAC ATC GGC GGC ACC ACC AAC C
408	W Line data has been corrected	ACC ACC GAG CAG CTG GTG GAG CAG GTG GAC A
411	W Line data has been corrected	GTC ATC AAG CCC GAC GCG CCC AAG CCC CGT G
414	W Line data has been corrected	TGG CCG CGC GCC ATC CCG CAG TTC AAC CTG G
417	W Line data has been corrected	GAC AAG GCG CGC AAG GCG CTG GAC GCG GCG G
420	W Line data has been corrected	CTG GGG GGC AAC TAC GTC AGC GGT GTG GCC C
423	W Line data has been corrected	CAC GGC TAC GAG TCC GCA GCC AAC CTG GCC A
426	W Line data has been corrected	GCA GTC AAG GCC TAA GCGGCTGCAG CAGTAGCAGC
429	W Line data has been corrected	GGTAAATGCC GCAGTGGCAC CGGCAGCAGC AATTGGCA
430	W Line data has been corrected	GAGGCGAGGG GGGGGCTACC ATTGGCGCTT GCTGGGAT
439	W Line data has been corrected	AATGATGTTG ACCCAGACTC CTGGGACC
449	W Line data has been corrected	TACTACACAT CCCAGCAAGC GCCAATG
459	W Line data has been corrected	TCGAGCTCAA TGATGTTGAC CCAGACTCCT GG
469	W Line data has been corrected	TTGTCGACTA CTACACATCC CAGCAAGCGC CA

Input Set: I289180.RAW

Line	Original Text	Corrected Data
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84	GGGACCCGTG GGGTTTCTGC AGTTGTAAAG CAGGGTGC	gggacccgtg gggtttctgc agttgtaaag caggggtgc
85	CGACTTTCCC CCAGGCCTTA CG ATG GCC CGG ACT	cgactttccc ccaggcctta cg atg gcc cgg act
88	GGT ATC AGC GGA TTG GCC GCA AGT TAT CAT C	ggt atc agc gga ttg gcc gca agt tat cat c
91	CCT CCT AAG GTG ATC TTA GTG GAG GGC AGC A	cct cct aag gtg atc tta gtg gag ggc agc a
94	ATC CGT TCA GTC CGA GGA TCA GAT GGT GCG A	atc cgt tca gtc cga gga tca gat ggt gcg a
97	CGA GGA ATT AGG CCG GCT GGA GCC CTG GGA G	cga gga att agg ccg gct gga gcc ctg gga g
100	GTT TCT GAA CTT GGC TTG GAA TCC GAA GTC T	gtt tct gaa ctt ggc ttg gaa tcc gaa gtc t
103	CAT CCA GCT GCC CAG AAC CGG TTC CTG TAT G	cat cca gct gcc cag aac cgg ttc ctg tat g
106	CCC CTA CCC TCT GGC CTC AGG GGG CTA CTT C	ccc cta ccc tct ggc ctc agg ggg cta ctt c
109	TCA AAA CCT CTA TTT TGG GCT GGA CTG AGG G	tca aaa cct cta ttt tgg gct gga ctg agg g
112	GGC AAA GAG CCT GAT GAG ACT GTG CAC AGT T	ggc aaa gag cct gat gag act gtg cac agt t
115	GGA CCT GAG GTG GCG TCT CTG GCT ATG GAC A	gga cct gag gtg gcg tct ctg gct atg gac a
118	TTT GCT GGC AAC AGC CAA GAG CTC AGC ATC C	ttt gct ggc aac agc caa gag ctc agc atc c
121	CTC TTC CAA GCT GAA CAA ACC CAC GGG TCC A	ctc ttc caa gct gaa caa acc cac ggg tcc a
124	CTG GGG GCA GGG CAA ACT CCA CAG CCC AAT T	ctg ggg gca ggg caa act cca cag ccc aat t
127	GCC CGC GCT GAG CGA TGG AGT CAG TGG TCA C	gcc cgc gct gag cga tgg agt cag tgg tca c
130	ATG TTG CCC CAG GCC CTT CAT AAC TAC CTA A	atg ttg ccc cag gcc ctt cat aac tac cta a
133	ATC CTC AGT GGT CAG CCA GCC TGC GGG CTC A	atc ctc agt ggt cag cca gcc tgc ggg ctc a
136	CAC TGG AAG GTG TCT CTA GGG GAC AGC AGT C	cac tgg aag gtg tct cta ggg gac agc agt c
139	ATA AGC ACC ATT CCA GCT TCA GTG CTC AGC A	ata agc acc att cca gct tca gtg ctc agc a
142	GCT GCA CCT CTG GCT CAC ATC CTG AGT ACC A	gct gca cct ctg gct cac atc ctg agt acc a
145	GCC GTG GTG AAT CTG CAG TAC AAA GGA GCT T	gcc gtg gtg aat ctg cag tac aaa gga gct t
148	TTT GGA CAT CTG GTG CCA TCC TCA GAA GAC C	ttt gga cat ctg gtg cca tcc tca gaa gac c
151	GTG TAT GAC TCG GTT GCT TTT CCT GAG CAG G	gtg tat gac tcg gtt gct ttt cct gag cag g
154	CTC AGA CTG ACT GTG ATG TTG GGA GGT TAC T	ctc aga ctg act gtg atg ttg gga ggt tac t
157	GCC AAT GGC CAT GAA TTG TCT CCA GAG CTA T	gcc aat ggc cat gaa ttg tct cca gag cta t
160	GAA GCG GCT GCC ACA CAG TTA GGA CTG AAA G	gaa gcg gct gcc aca cag tta gga ctg aaa g
163	TTG GTC CAT CTA CAC AAA AAC TGT ATC CCT C	ttg gtc cat cta cac aaa aac tgt atc cct c
166	TGG CAA AAA CTA GAC TCA GCT CTG CAA TTC C	tgg caa aaa cta gac tca gct ctg caa ttc c
169	CCC CTG ACT TTG GCT GGG GCC TCC TAT GAG G	ccc ctg act ttg gct ggg gcc tcc tat gag g
172	TGT ATA GAG AGT GGG CGC CAG GCA GCA ATT G	tgt ata gag agt ggg cgc cag gca gca att g
175	TCG AAC AGC TGA CCCCCACTCT CCTACTCATG AAA	tcg aac agc tga cccccactct cctactcatg aaa
178	TTGAAAAAAA AAAAAAAAAA AA	ttgaaaaaaa aaaaaaaaaa aa
188	TTTGCAGAGG AGTGTGCTTGGT GGCAACAG	tttgcagagg agtgttcttggg ggcaacag
198	AGCCGCTTCC TGTGCTGCTC GTTGAATA	agccgcttcc tgtgctgctc gttggaata
207	AGGCCTTACC GCGGCCCGGA CTGTG	aggccttacc gcggcccgga ctgtg
216	TAGGAGAGCC CGGGTCAGAT GTTCCG	taggagagcc cgggtcagat gttccg
226	ATGGCCCGGA CTGTGATAGT GCTTG	atggcccgga ctgtgatagt gcttg
236	TTCATGAGTA GGAGAGTGGG GGTCA	ttcatgagta ggagagtggg ggtca
321	A ATG ATG TTG ACC CAG ACT CCT GGG ACC GCC	a atg atg ttg acc cag act cct ggg acc gcc
324	CGG TCG CAG ATC CGC TCG GCT GCG CAC GTC T	cgg tcg cag atc cgc tcg gct gcg cac gtc t
327	CGG CCC ACG CCA TTC TCG GTC GCG AGC CCC G	cgg ccc acg cca ttc tcg gtc gcg agc ccc g
330	GCG ACC GCG GCG GCC CGC CGC ACA CTC CAC C	gcg acc gcg gcg gcc cgc cgc aca ctc cac c
333	ACT GGT GCT CCC ACG GCG TCC GGA GCC GGC G	act ggt gct ccc acg gcg tcc gga gcc ggc g
336	AAT GTG TAT GAC GTG ATC GTG GTC GGT GGA G	aat gtg tat gac gtg atc gtg gtc ggt gga g
339	ACC GGC CAG GCC CTG GCG GCT CAG CAC AAA A	acc ggc cag gcc ctg gcg gct cag cac aaa a
342	ACG GAG GCT CGC GAG CGC GTC GGC GGC AAC A	acg gag gct cgc gag cgc gtc ggc ggc aac a
345	GAT GGC TAC GTG TGG GAG GAG GGC CCG AAC A	gat ggc tac gtg tgg gag gag ggc ccg aac a
348	AGC ATG CTG CAG ATT GCG GTG GAC TCT GGC T	agc atg ctg cag att gcg gtg gac tct ggc t



Input Set: I289180.RAW

Line	Original Text	Corrected Data
351	TTC GGT GAC CCC ACG GCT CCC CGC TTC GTG T	ttc ggt gac ccc acg gct ccc cgc ttc gtg t
354	CGC CCC GTG CCC TCG GGC CTG GAC GCC TTC A	cgc ccc gtg ccc tcg ggc ctg gac gcc ttc a
357	ATC CCC GGC AAG ATC CGC GCC GGG CTG GGC G	atc ccc ggc aag atc cgc gcc ggg ctg ggc g
360	GGA GCC ATG CCC TCC TTC GAG GAG AGT GTG G	gga gcc atg ccc tcc ttc gag gag agt gtg g
363	AAC CTG GGC GAT GAG GTG TTC TTC CGC CTG A	aac ctg ggc gat gag gtg ttc ttc cgc ctg a
366	GGC GTG TAC GCG GGC GAC CCC TCC AAG CTG T	ggc gtg tac gcg ggc gac ccc tcc aag ctg t
369	AAC AGG ATC TGG ATT CTG GAG AAG AAC GGC G	aac agg atc tgg att ctg gag aag aac ggc g
372	GCC ATC AAG CTG TTC CAG GAA CGC CAG TCC A	gcc atc aag ctg ttc cag gaa cgc cag tcc a
375	GAC CCG CGC CTG CCG CCC AAG CCC AAG GGC C	gac ccg cgc ctg ccg ccc aag ccc aag ggc c
378	CGC AAG GGC CTG AAG ATG CTG CCG GAC GCC A	cgc aag ggc ctg aag atg ctg ccg gac gcc a
381	GAC AAG ATC CGC GTG AAC TGG AAG CTG GTG T	gac aag atc cgc gtg aac tgg aag ctg gtg t
384	GAC GGG CGG TAC GGG CTG GTG TAC GAC ACG C	gac ggg cgg tac ggg ctg gtg tac gac acg c
387	GTG TTT GCC CGC GCC GTG GCT CTG ACC GCG C	gtg ttt gcc cgc gcc gtg gct ctg acc gcg c
390	GAC CTG GTC AAG GAG CAG GCG CCC GCC GCC G	gac ctg gtc aag gag cag gcg ccc gcc gcc g
393	TTC GAC TAC CCG CCG GTG GGC GCC GTG ACG C	ttc gac tac ccg ccg gtg ggc gcc gtg acg c
396	GCC GTG CGG GAG GAG CGC AAG GCC TCG GAC G	gcc gtg cgg gag gag cgc aag gcc tcg gac g
399	GGT CAG CTG CAC CCG CGC ACG CAG GGC ATC A	ggt cag ctg cac ccg cgc acg cag ggc atc a
402	TAC AGC TCC AGC CTG TTC CCC GGC CGC GCG C	tac agc tcc agc ctg ttc ccc ggc cgc gcg c
405	CTG CTC AAC TAC ATC GGC GGC ACC ACC AAC C	ctg ctc aac tac atc ggc ggc acc acc aac c
408	ACC ACC GAG CAG CTG GTG GAG CAG GTG GAC A	acc acc gag cag ctg gtg gag cag gtg gac a
411	GTC ATC AAG CCC GAC GCG CCC AAG CCC CGT G	gtc atc aag ccc gac gcg ccc aag ccc cgt g
414	TGG CCG CGC GCC ATC CCG CAG TTC AAC CTG G	tgg ccg cgc gcc atc ccg cag ttc aac ctg g
417	GAC AAG GCG CGC AAG GCG CTG GAC GCG GCG G	gac aag gcg cgc aag gcg ctg gac gcg gcg g
420	CTG GGG GGC AAC TAC GTC AGC GGT GTG GCC C	ctg ggg ggc aac tac gtc agc ggt gtg gcc c
423	CAC GGC TAC GAG TCC GCA GCC AAC CTG GCC A	cac ggc tac gag tcc gca gcc aac ctg gcc a
426	GCA GTC AAG GCC TAA GCGGCTGCAG CAGTAGCAGC	gca gtc aag gcc taa gcggctgcag cagtagcagc
429	GGTAAATGCC GCAGTGGCAC CGGCAGCAGC AATTGGCA	ggtaa atgcc gcagtggcac cggcagcagc aattggca
430	GAGGCGAGGG GGGGGCTACC ATTGGCGCTT GCTGGGAT	gaggcgaggg gggggctacc attggcgctt gctgggat
439	AATGATGTTG ACCCAGACTC CTGGGACC	aatgatgttg acccagactc ctgggacc
449	TACTACACAT CCCAGCAAGC GCCAATG	tactacacat cccagcaagc gccaatg
459	TCGAGCTCAA TGATGTTGAC CCAGACTCCT GG	tcgagctcaa tgatgttgac ccagactcct gg
469	TTGTCGACTA CTACACATCC CAGCAAGCGC CA	ttgtcgacta ctacacatcc cagcaagcgc ca